



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
SOLID WASTE AND EMERGENCY  
RESPONSE

June 16, 2009

**MEMORANDUM**

**SUBJECT:** National Remedy Review Board Recommendations for the Eastern Michaud Flats Superfund Site

**FROM:** Kevin G. Garrahan, PhD, PE, Acting Chair  
National Remedy Review Board

A handwritten signature in black ink, appearing to read "Kevin G. Garrahan", is written over the "FROM:" line.

**TO:** Dan Opalski, Director  
Office of Environmental Cleanup  
U.S. EPA Region X

**Purpose**

The National Remedy Review Board (the Board) has completed its review of the Amendment to the 1998 Record of Decision for the Eastern Michaud Flats Superfund site in Pocatello, Idaho. This memorandum documents the Board's advisory recommendations.

**Context for Board Review**

The Administrator announced the Board as one of the October 1995 Superfund Administrative Reforms to help control response costs and promote consistent and cost-effective decisions. The Board furthers these goals by providing a cross-regional, management-level, "real time" review of high cost proposed response actions prior to their being issued for public comment. The Board reviews all proposed cleanup actions that exceed its cost-based review criteria.

The Board evaluates the proposed actions for consistency with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and relevant Superfund policy and guidance. It focuses on the nature and complexity of the site; health and environmental risks; the range of alternatives that address site risks; the quality and reasonableness of the cost estimates for alternatives; regional, state/tribal, and other stakeholder opinions on the proposed actions; and any other relevant factors.

Generally, the Board makes advisory recommendations to the appropriate regional decision maker. The region will then include these recommendations in the administrative record for the site, typically before it issues the proposed cleanup plan for public comment. While the Region is expected to give the Board's recommendations substantial weight, other



important factors, such as subsequent public comment or technical analyses of response options, may influence the Region's final decision. The Board expects the regional decision maker to respond in writing to its recommendations within a reasonable period of time, noting in particular how the recommendations influenced the proposed cleanup decision, including any effect on the estimated cost of the action. It is important to remember that the Board does not change the Agency's current delegations or alter in any way the public's role in site decisions.

### **Overview of the Proposed Action**

The Eastern Michaud Flats site is located in Southeast Idaho, approximately 2.5 miles northwest of Pocatello. The site includes two adjacent phosphate ore processing plants, the FMC Corporation Elemental Phosphorus Plant (FMC) and the J.R. Simplot Company Don Plant (Simplot). Both began operating in the 1940s. The FMC plant ceased operations in December 2001 and was subsequently demolished. These plant areas occupy approximately 2,475 acres (approximately 1,450 for FMC, and 1,025 for Simplot). The site encompasses the areal extent of contamination at or from both plants including what the Record of Decision (ROD) described as the "Off-Plant Subarea" for portions of the site beyond plant properties. The proposed actions address only the Simplot Operable Unit (OU).

The proposed action would amend the 1998 ROD to add phosphorous as a contaminant of concern and require additional pollution control measures and/or source control measures at the Simplot Don plant. The preferred remedy for the site would now include characterization of sources of contaminants at or near the phosphoric acid plant, source control actions for phosphorous, installation of a plastic liner on top of gypsum stack waste piles to minimize the infiltration of process water through the gypsum stack and into groundwater, and continued operation and enhancement of the groundwater extraction system to address arsenic and phosphorous concentration above levels of concern.

### **NRRB Advisory Recommendations**

The Board reviewed the information package describing this proposal and discussed related issues with Kira Lynch and Cyndy Mackey on May 7, 2009. Please note that the Board's comments are directed towards information presented at the meeting about the proposed amendments to the ROD (e.g., not the materials in the original ROD signed in 1998). Based on this review and discussion, the Board offers the following comments:

1. **Risks Posed by Site Contaminants.** The materials presented to the Board did not contain sufficient information for the Board to evaluate risks to human health and the environment. The Board recommends that the Region identify, clarify, and document the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) site-related risks posed by constituents of concern that were not previously identified (e.g., phosphorous), which might now be the basis for additional cleanup actions at the site.
2. **Role of Phosphorus Total Maximum Daily Loadings.** The proposed plan refers to Total Maximum Daily Loadings (TMDLs) when discussing the development of protective



numerical cleanup levels for phosphorus in groundwater. The Board notes that the TMDLs generally are not Applicable or Relevant and Appropriate Requirements (ARARs) but may be "to be considered" standards for purposes of developing a remedial action that is protective of human health and the environment. The Board recommends that the decision documents more clearly explain the role of TMDLs in establishing cleanup levels for phosphorus at this site.

3. **Impact of Phosphorus on the Mobility and Toxicity of Other Contaminants.** Based on information presented by the Region, the Board notes that phosphorus is a hazardous substance being released at this site, which may also affect the mobility or bioavailability of other contaminants (both radioactive and non-radioactive) released from site waste materials. The Board recommends that the Region address this potential impact as part of its geochemical site evaluation.
4. **Cleanup Goals and Remediation Time Frame for Phosphorus.** The package presented to the Board indicated that the ROD amendment will address and require remedial action for an additional contaminant of concern (phosphorus) not identified in the original ROD. The Board notes that the proposed plan does not include a risk-based cleanup goal and remediation time frame for phosphorus. Consistent with EPA guidance on preparing a ROD [OSWER 9200.1-23P, July 1999], the Board recommends that the Region include a cleanup goal and remediation time frame for phosphorus in its decision document.
5. **Role of Idaho's Anti-degradation Groundwater Policy.** The Board notes that the published proposed plan for the site identifies Idaho's anti-degradation groundwater policy as an ARAR. The Board recommends that future site-related documents reflect the fact that the state policy is not an ARAR.
6. **Treatment or Reuse of Extracted Groundwater.** The ROD amendment's preferred alternative, which now includes lining the gypsum stack, would significantly increase the amount of groundwater that is extracted from beneath the site. According to information provided to the Board, an independent design review was conducted on both the original remedy and proposed amendment to the ROD. The results of this review recommended several remedial actions including the treatment of extracted groundwater or the reuse of extracted groundwater in plant operations instead of allowing it to re-infiltrate the groundwater through the gypsum stack. The Board concurs with this proposal and recommends that the results of this independent design review be incorporated into the decision-making process at the site.

## **Conclusion**

We commend the Region's collaborative efforts in working with the Board and stakeholder groups at this site. We request that a draft response to these recommendations be included with the draft Record of Decision when it is forwarded to the OSRTI Site Assessment & Remedy Decisions (SARD) Branch for review. The SARD Branch will work with both your staff and the Board to resolve any remaining issues prior to your release of the ROD. Once your

response is final and made part of the site's Administrative Record, a copy of this letter and your response will be posted on the Board's website (<http://www.epa.gov/superfund/programs/nrrb/>).

Thank you for your support and the support of your managers and staff in preparing for this review. Please call me at (703) 603-8706 should you have any questions.

cc: J. Woolford (OSRTI)  
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E. Gilberg (OSRE)  
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